

**REMARKS**

Claims 1-13, 24, 25, 29-31, 34-36 and 40-57 were pending in the application. Claims 3, 4, 10-13, 24, 25, 29-31, 36 and 41-57 have been withdrawn from consideration by the Examiner as pertaining to a non-elected invention. Claim 1 has been amended to include the subject matter of claim 9, which has been canceled. Additionally, claims 12 and 53-57 have been amended to more closely conform with standard U.S. Practice. No new matter has been introduced. Thus, claims 1, 2, 5-8, 34, 35 and 40 are pending for reconsideration at this time.

**Claim Objections**

Claims 1, 2, 5-9, 34, 35 and 40 stand objected to because the capitalization of "Fiber Reinforced Plastic" is believed to be improper. Applicants have amended claim 1 accordingly. Withdrawal of the objection to claims 1, 2, 5-9, 34, 35 and 40 is solicited.

**Rejections Under 35 U.S.C. §102(b)**

Claims 1, 2, 5-9, 34 and 35 stand rejected under 35 U.S.C. 102(b) as being anticipated by Adams. No specific patent number has been provided in the Office Action for Adams and Adams is not a new reference according to the list of newly cited references. Thus, Applicants presume the Office Action is referring to U.S. Patent No. 5,150,812 as Adams, which was cited in Applicants' information disclosure statement of November 14, 2000.

The Office Action acknowledges on page 3 that Adam fails to disclose "the specific tensile modulus, tensile breaking strain, carbon yarn and the strand tensile strength and strand tensile breaking strain of the yarn and the oxygen ratio and nitrogen content of the yarn". Thus, Adams cannot anticipate the presently claimed invention for at least the reasons acknowledged by the Office Action.

Withdrawal of the rejection under 35 U.S.C. 102(b) is solicited.

**Rejections Under 35 U.S.C. §103(a)**

Claims 1, 2, 5-9, 34 and 35 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over Adams in view of U.S. Patent No. 5,072,687 to Shigetoh ("Shigetoh" hereafter). Claim 40 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Adams in view of U.S. Patent No. 3,137,405 to Gorcey ("Gorcey" hereafter). Applicants respectfully traverse this rejection as follows.

The Office Action correctly acknowledges that the cited art fails to disclose the claimed oxygen and nitrogen ratios for carbon fiber yarn (see also page 11, line 4 to page 12, line 18 and Example 2 of the as filed specification). However, the Office Action asserts that a “3.0 or less oxygen ratio at surface and 0.02 or more in nitrogen at surface for carbon fiber yarn is well known” and that it “would have been obvious to use a carbon fiber yarn having . . . 0.30 or less oxygen ratio at surface and 0.02 or more nitrogen at surface because this is stronger than other carbon fiber yarns.” Applicants respectfully disagree, and request that the Examiner provide a reference teaching the claimed range *and* motivation to modify the structures disclosed by Adams and Shigetoh under the provisions of MPEP §2144.03 (Reliance On Common Knowledge in the Art or “Well Known” Prior Art). Hence, this assertion by the Office Action has been traversed.

Additionally, the Office Action asserts that it “would have been obvious to hoop wind the reinforcing fibers in a layer within the innermost layer of the shoulder portion of the outer shell to reduce hoop stress in the outer shell.” However, both Adams and Shigetoh fail to disclose or suggest such a technique. Thus, the Office Action must be relying on improper hindsight reasoning based only from Applicants’ disclosure. See MPEP §2145(X)(A) (Impermissible Hindsight Reasoning). “The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure.” MPEP §2142 (Establishing A *Prima Facie* Case Of Obviousness) citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) (emphasis added). Hence, this assertion by the Office Action has also been traversed.

In view of the aforementioned arguments, withdrawal of the rejections under 35 U.S.C. §103(a) is solicited.

**Conclusion**

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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